Chemical and Petroleum Engineering 2013 vol.48 N11-12, pages 654-657

Determination of number of sections in a gravity-flow flotation plant

Ermakova E., Sadykov A., Shagivaleev A., Korotkov Y.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

A flow diagram for gas treatment of water contaminated with insoluble liquid impurities in an n-section gravity-flow flotation plant is examined. material-balance equations are presented for each section of the unit; simultaneous solution of these equations will permit determination of the ultimate design value of impurities in the treated water. An example is given for the calculation based on a given output of the flotation plant, the content of transformer oil in the initial water, and the cleaning efficiency of the water as a function of the water that enters a section.

http://dx.doi.org/10.1007/s10556-013-9675-y